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THE PREFACE OF ANDREAS VESALIUS TO *De Humanis Corporis Fabrica, 1543**

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TRANSLATOR'S NOTE.—In the preface to *De Humanis Corporis Fabrica* a master-spirit speaks of himself and of his work. Twenty-eight years of age, professor of anatomy in three universities of Italy, his prolonged and arduous researches completed and the results digested into the first great masterpiece of modern science, he presents himself to the reader at the supreme crisis of his career. He is entirely conscious of his own worth and of the importance of the rôle for which he is cast. In the forefront of his work he sets two illustrations. First, the woodcut portrait of himself exhibiting the muscles that control the hand, a famous and decisive moment in his career. Second, the symbolic scene in which, before an enthralled and crowded assembly, he dissects a corpse in person, banishing for ever the old atmosphere of lector, demonstrator, dependence upon authority, and boredom. The same story is told in the prefatory dedication, and it is the translator's task to choose a style that will best offer to the modern reader a living contact with the man and the moment.

TRANSLATION is always a compromise and never easy. The Latin of Vesalius is a very accomplished medium. He can give a clear and simple description of the parts of the human body and their functions. He can give (and this is not easy in any language) precise, intelligible instructions for the execution of complicated operations, as witness his final chapter—on vivisection. He can tell an anecdote with point and spirit. But he can also write in an elaborate rhetorical style, as he has, for instance, in this dedication, wherein the periods grow to an unwieldy bulk, wherein redundancies are admitted or sought after in order to swell the rolling rhythms, wherein the folds of classical rhetoric in a dead, learned language drape themselves with a comical heaviness about the clean, stripped thought.

My version is intended to be both close and faithful; but I have deliberately lightened and modernized the style by introducing paragraphs (none are indicated in the original), by breaking up the periods, and by pruning occasional redundancies. I hope that these concessions to the convenience and taste of the modern reader have not allowed the character of the man and the epoch wholly to evaporate.

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The translation has been made from the text as edited by Boerhaave and Albinus in 1725. The beginning of each page of the first edition of 1543 has been indicated in the left-hand margin. For the satisfaction of those interested in the terminology of Vesalius, some of the more important Latin terms have been given at the foot of the page.

I am indebted to Dr. Charles Singer for corrections and improvements in my version of the text, and also for the addition of notes from his own store of knowledge.

THE PREFACE OF ANDREAS VESALIUS TO

*His Own Books on the Mechanism of the
Human Body addressed to
The Most Great and Invincible Emperor
THE DIVINE CHARLES V.*

Those engaged in the arts and sciences, Most Gracious Emperor Charles, find many serious obstacles to the exact study and successful application of them. In the first place, no slight inconvenience results from too great separation between branches of study which serve for the perfection of one art. But much worse is the mischievous distribution among different practitioners of the practical applications of the art. This has been carried so far that those who have set before themselves the attainment of an art embrace one part of it to the neglect of the rest, although they are intimately bound up with it and can by no means be separated from it. Such never achieve any notable result; they never attain their goal, or succeed in basing their art upon a proper foundation.

I shall pass over all the other arts in silence and confine myself to a few remarks on that which presides over the health of mankind. This, of all the arts which the mind of man has discovered, is by far the most beneficial, necessary, abstruse and laborious. But in bygone times, that is to say [in the West] after the Gothic deluge and [in the East] after the reign of Mansor at Bochara in

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Persia, under whom, as we know, the Arabs still lived as was right on terms of familiarity with the Greeks, medicine began to be sore distempered. Its primary instrument, the employment of the hand in healing, was so neglected that it was relegated to vulgar fellows with no instruction whatsoever in the branches of knowledge that subserve the art of medicine.

In ancient times there were three medical sects, to wit, the Dogmatic, the Empirical and the Methodical, but the exponents of each of these embraced the whole of the art as the means to preserve health and war against disease. To this end they referred all that they individually thought necessary in their particular sects, and employed the service of a threefold aid to health: first, a theory of diet; secondly, the whole use of drugs; and thirdly, manual operation. This last, above the rest, nicely proves the saying that medicine is the addition of that which is defective and the removal of that which is in excess; as often as we resort to the art of medicine for the treatment of disease we have occasion to employ it; and time and experience have taught, by the benefits it has conferred, that it is the greatest aid to human health.

This triple manner of treatment was equally familiar to the doctors of each sect; and those who applied manual operation according to the nature of the affection, expended no less care in training their hands than in establishing a theory of diet, or in learning to recognize and compound drugs. This, not to mention his other books, is clearly shown by those most perfect of the compositions of Hippocrates: *On the Function of the Doctor, On Fractures of Bones, On Dislocations of Joints and Similar Ailments*. Nay more, Galen, after Hippocrates the prince of medicine, in addition to the fact that he boasts from time to time that the care of the gladiators of Pergamum was entrusted to his sole charge, and that when age was now becoming a burden he was reluctant for the monkeys he had for dissection to be skinned by the help of slaves, frequently impresses on us his joy in manual dexterity and how zealously he, in common with the other doctors of Asia, employed it. Indeed, there is no one of the ancients who does not seem as solicitous to hand down to posterity the method of cure which is effected by the hand as those methods which depend on diet and drugs.

But it was especially after the ruin spread by the Goths, when all the sciences, which before had flourished gloriously and were practised as was fitting, went to ruin, that more fashionable doctors, first in Italy, in imitation of the old Romans, despising the work of the hand, began to delegate to slaves the manual attentions which they judged needful for their patients, and themselves merely to stand over them like master builders. Then,

when all the rest also who practised the true art of healing gradually declined the unpleasant duties of their profession, without however abating any of their claim to money or honour, they quickly fell away from the standard of the doctors of old. Methods of cooking, and all the preparation of food for the sick, they left to nurses; compounding of drugs they left to the apothecaries; manual operation to barbers. Thus in course of time the art of healing has been so wretchedly rent asunder, that certain doctors, advertising themselves under the name of physicians, have arrogated to themselves alone the prescription of drugs and diet for obscure diseases, and have relegated the rest of medicine to those whom they call surgeons and scarcely regard as slaves, disgracefully banishing from themselves the chief and most ancient branch of the medical art, and that which principally (if indeed there be any other) bases itself upon the investigation of nature. Yet among the Indians today it is the kings that chiefly exercise this [surgical] art; the Persians hand it down as an obligatory inheritance to their children, as formerly did the whole family of the Asclepiads; the Thracians, with many other nations, cultivate and honour it above other arts, to the neglect almost of that part of the art [the prescription of drugs], which formerly many proscribed from the state, as devised for the deception and destruction of men; for it, refusing the aid of nature gives no deep relief, but rather, endeavouring to help nature while it is in any case overwrought by the effort to cast off the disease, it often destroys it quite and utterly distracts it from its normal function. Consequently it is to it in particular we owe the fact that so many scoffs are wont to be cast at doctors, and this most holy art is made a mock, though all the time one part of it, which those trained in liberal studies allow basely to be torn from them, could adorn it for ever with peculiar praise.

For when Homer, that well-spring of genius, declares that a man that is a doctor is better than a host, and together with all the poets of Greece celebrates Podalyrius and Machaon, truly these divine sons of Aesculapius are thus praised not for the reason that they banished a touch of fever or other ailments which nature usually cures unaided, and without the assistance of the doctor more easily than with his aid, nor because they pandered to the appetites of men in obscure and desperate affections, but because they devoted themselves in particular to the cure of dislocations, fractures, bruises, wounds, and other breaches of continuity, and to fluxions of blood, and because they freed the noble warriors of Agamemnon from javelins, darts, and other evils of that kind, which wars particularly occasion, and which always de-

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mand the careful attention of the doctor.

But it was not at all my purpose to set one instrument of medicine above the rest, since the triple art of healing, as it is called, cannot at all be disunited and wrenched asunder, but belongs in its entirety to the same practitioner; and for the due attainment of this triple art, all the parts of medicine have been established and prepared on an equal footing, so that the individual parts are brought into use with a success proportioned to the degree in which one combines the cumulative force of all. How rarely indeed a disease occurs which does not at once require the triple manner of treatment: that is to say, a proper diet must be prescribed, some service must be rendered by medicine, and some by the hand. Therefore the tyros in this art must by every means be exhorted to follow the Greeks in despising the whisperings of those physicians (save the mark!), and, as the fundamental nature and rational basis of the art prescribes, to apply their hands also to the treatment, lest they should rend the body of medicine and make of it a force destructive of the common life of man.

And they must be urged to this with all the greater earnestness because men to-day who have had an irreproachable training in the art are seen to abstain from the use of the hand as from the plague, and for this very reason, lest they should be slandered by the Masters of the profession as barbers before the ignorant mob, and should henceforth lack equal gain and honour with those less than half-doctors, losing their standing both with the uneducated commonalty and with princes. For it is indeed above all other things the wide prevalence of this hateful error that prevents us even in our age from taking up the healing art as a whole, makes us confine ourselves merely to the treatment of internal complaints, and, if I may utter the blunt truth once for all, causes us, to the great detriment of mankind, to study to be healers only in a very limited degree.

For when, in the first place, the whole compounding of drugs was handed over to the apothecaries, then the doctors promptly lost the knowledge of simple medicines which is absolutely essential to them; and they became responsible for the fact that the druggists' shops were filled with barbarous terms and false remedies, and also that so many elegant compositions of the ancients were lost to us, several of which have not yet come to light; and, finally, they prepared an endless task for the learned men, not only of our own age, but for those who preceded it by some years, who devoted themselves with indefatigable zeal to research in simple medicines; so much so that they may be regarded as having gone far to restore the knowledge of them to its former brilliance.

But this perverse distribution of the instruments of healing among a variety of craftsmen inflicted a much more odious shipwreck and a far more cruel blow upon the chief branch of natural philosophy [Anatomy], to which, since it comprises the natural history of man and should rightly be regarded as the firm foundation of the whole art of medicine and its essential preliminary, Hippocrates and Plato attached so much importance that they did not hesitate to put it first among the parts of medicine. For though originally it was the prime object of the doctors' care, and though they strained every nerve to acquire it, it finally began to perish miserably when the doctors themselves, by resigning manual operations to others, ruined Anatomy. For when the doctors supposed that only the care of internal complaints concerned them, considering a mere knowledge of the viscera as more than enough for them, they neglected the structure of the bones and muscles, as well as of the nerves, veins and arteries which run through bones and muscles, as of no importance for them. And further, when the whole conduct of manual operations was entrusted to barbers, not only did doctors lose the true knowledge of the viscera, but the practice of dissection soon died out, doubtless for the reason that the doctors did not attempt to operate, while those to whom the manual skill was resigned were too ignorant to read the writings of the teachers of anatomy.

It is thus utterly impossible for this class of men to preserve for us a difficult art which they have acquired only mechanically. And equally inevitably this deplorable dismemberment of the art of healing has introduced into our schools the detestable procedure now in vogue, that one man should carry out the dissection of the human body, and another give the description of the parts. These latter are perched up aloft in a pulpit like jackdaws, and with a notable air of disdain they drone out information about facts they have never approached at first hand, but which they merely commit to memory from the books of others, or of which they have descriptions before their eyes; the former are so ignorant of languages that they are unable to explain their dissections to the onlookers and botch what ought to be exhibited in accordance with the instruction of the physician, who never applies his hand to the dissection, and contemptuously steers the ship out of the manual, as the saying goes. Thus everything is wrongly taught, days are wasted in absurd questions, and in the confusion less is offered to the onlooker than a butcher in his stall could teach a doctor. I omit all mention of those schools in which there is scarcely even a thought of opening a human body to exhibit its structure. So far had ancient medicine fallen some years ago from its pristine glory.

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But when medicine in the great blessedness of this age, which the gods will to entrust to the wise guidance of your divine power, had, together with all studies, begun to live again and to lift its head up from its utter darkness (so much so, indeed, that it might without fear of contradiction be regarded in some academies as having well nigh recovered its ancient brilliance); and when there was nothing of which the need was now so urgently felt as the resurrection of the science of Anatomy, then I, challenged by the example of so many eminent men, in so far as I could and with what means I could command, thought I should lend my aid. And lest, when all others for the sake of our common studies were engaged in some attempt and with such great success, I alone should be idle, or lest I should fall below the level of my forebears, doctors to be sure not unknown to fame, I thought that this branch of natural philosophy should be recalled from the dead, so that if it did not achieve with us a greater perfection than at any other place or time among the old teachers of anatomy, it might at least reach such a point that one could with confidence assert that our modern science of anatomy was equal to that of old, and that in this age anatomy was unique both in the level to which it had sunk and in the completeness of its subsequent restoration.

But this effort could by no manner of means have succeeded, if, when I was studying medicine at Paris, I had not myself applied my hand to this business, but had acquiesced in the casual and superficial display to me and my fellow-students by certain barbers of a few organs at one or two public dissections. For in such a perfunctory manner was anatomy then treated in the place where we have lived to see medicine happily reborn, that I myself, having trained myself without guidance in the dissection of brute creatures, at the third dissection at which it was my fortune ever to be present (this, as was the custom there, was concerned exclusively or principally with the viscera), led on by the encouragement of my fellow-students and teachers, performed in public a more thorough dissection than was wont to be done. Later I attempted a second dissection, my purpose being to exhibit the muscles of the hand together with a more accurate dissection of the viscera. For except for eight muscles of the abdomen, disgracefully mangled and in the wrong order, no one (I speak the simple truth) ever demonstrated to me any single muscle, or any single bone, much less the network of nerves, veins and arteries.

Subsequently at Louvain, where I had to return on account of the disturbance of war, because during eighteen years the doctors there had not even dreamed of anatomy, and in order that I might help the students of that academy, and that I my-

self might acquire greater skill in a matter both obscure and in my judgment of prime importance for the whole of medicine, I did somewhat more accurately than at Paris expound the whole structure of the human body in the course of dissecting, with the result that the younger teachers of that academy now appear to spend great and very serious study in acquiring a knowledge of the parts of man, clearly understanding what invaluable material for philosophizing is presented to them from this knowledge. Furthermore at Padua, in the most famous gymnasium of the whole world, I had been charged with the teaching of surgical medicine five years by the Illustrious Senate of Venice, which is far the most liberal in the endowment of the higher branches of learning. And since the carrying out of anatomical enquiry is of importance for surgical medicine, I devoted much effort to the investigation of the structure of man, and so directed my enquiries, and, exploding the ridiculous fashion of the schools, so taught the subject, that we could not find in my procedure anything that fell short of the tradition of the ancients.

However, the supineness of the medical profession has seen to it only too well that the writings of Eudemus, Herophilus, Marinus, Andreas, Lycus, and other princes of anatomy should not be preserved to us, since not even a fragment of any page has survived of all those famous writers whom Galen mentions, to the number of more than twenty, in his second commentary to the book of Hippocrates on *The Nature of Man*. Nay, even of his own anatomical writings scarcely the half has been saved from destruction. But those who followed Galen, among whom I place Oribasius, Theophilus, the Arabs, and all our own writers whom I have read to date, all of them (and they must pardon me for saying this), if they handed on anything worth reading, borrowed it from him. And, believe me, the careful reader will discover that there is nothing they were further from attempting than the dissection of bodies. They placed an absolute trust in I know not what quality of the writing of their chief, and in the neglect of dissection of the rest, and shamefully reduced Galen to convenient summaries, never departing from him by so much as the breadth of a nail, that is supposing they succeed in arriving at his meaning. Nay, they place it in the forefront of their books that their own writings are pieced together from the teachings of Galen, and that all that is theirs is his. And so completely have all surrendered to his authority, that no doctor has been found to declare that in the anatomical books of Galen even the slightest error has ever been found, much less could now be found; though all the time (apart from the fact that Galen frequently corrects him-

THE TEACHING OF ANATOMY — BEFORE AND AFTER VESALIUS

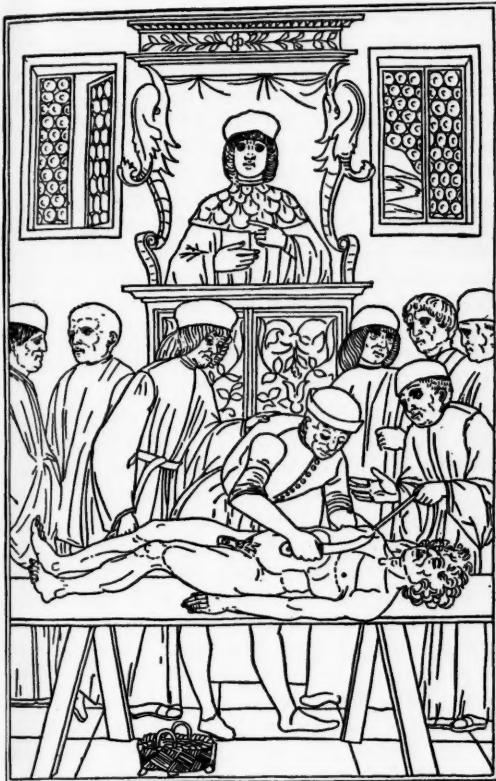


Fig. 28. AN ANATOMICAL LECTURE AT PADUA in the fifteen century, from a contemporary Italian woodcut.

self, and in later books, after acquiring more experience, removes oversights that he had committed in earlier books, and sometimes teaches contradictory views) it is quite clear to us, from the revival of the art of dissection, from a painstaking perusal of the works of Galen, and from a restoration of them in several places, of which we have no reason to be ashamed, that Galen himself never dissected a human body lately dead. Nay more, deceived by his monkeys (although it is admitted that human bodies dried, and prepared as it were for an inspection of the bones, did come under his observation), he frequently wrongly controverts the ancient doctors who had trained themselves by dissecting human corpses.

And again, how many false observations you will find him to have made even on his monkeys. I shall say nothing about the astonishing fact that in the manifold and infinite divergences of the organs of the human body from those of the monkey Galen hardly noticed anything except in the fingers



Fig. 31. TITLE-PAGE of the work *On the Fabric of the Human Body*, by Vesalius, published in 1543.

It shows a dissection scene at Padua. In the center stands Vesalius dissecting a female body. At the head of the table stands an articulated skeleton. At its foot are dissecting instruments. Eager students throng around. In the foreground attendants are squabbling. On one side an attendant holds a monkey, one on the other a dog, for Vesalius had often to resort to animal in lieu of human anatomy. Shut off by a bar are members of the lay public. Gallants, grey-bearded scholars, monks, and an enthusiastic bookworm may be discerned among them. Other observers crowd in from every vantage point, even from the windows in the roof. The naked man to the left has been used by Vesalius to demonstrate the surface markings of the underlying organs. The whole scene is busy and vigorous in the extreme. It should be contrasted with the academic calm of Fig. 28 drawn fifty years earlier.

and the bend of the knee—which he would certainly have passed over with the rest, if they had not been obvious to him without dissection. But at the moment I do not propose to criticize the false statements of Galen, easily the foremost among the teachers of anatomy; and much less would I wish to be regarded now in the beginning as disloyal to the author of all good things and lacking in respect for his authority. For I am not unaware how the medical profession (in this so different from the followers of Aristotle) are wont

to be upset when in more than two hundred instances, in the conduct of the single course of anatomy I now exhibit in the schools, they see that Galen has failed to give a true description of the inter-relation, use, and function of the parts of man—how they scowl at times, and examine every inch of the dissection in their determination to defend him. Yet they too, drawn by the love of truth, gradually abandon that attitude and, growing less emphatic, begin to put faith in their own not ineffectual sight and powers of reason rather than in the writings of Galen. These true paradoxes, won not by slavish reliance on the efforts of others, nor supported merely by masses of authorities, they eagerly communicate in their correspondence to their friends; they exhort them so earnestly and so friendly-wise to examine them for themselves, and to come at last to a true knowledge of anatomy, that there is ground for hope that anatomy will ere long be cultivated in all our academies as it was of old in Alexandria.

And that the Muses might the more smile upon this hope, I have, so far as in me lay, and in addition to my other publications on this subject—which certain plagiarists, thinking me far away from Germany, have put out there as their own—made a completely fresh arrangement in seven books of my information about the parts of the human body in the order in which I am wont to lay the same before that learned assembly in this city, as well as at Bologna, and at Pisa. Thus those present at the dissections will have a record of what was there demonstrated, and will be able to expound anatomy to others with less trouble. And also the books will be by no means useless to those who have no opportunity for personal examination, for they relate with sufficient fulness the number, position, shape, substance, connection with other parts, use and function of each part of the human body, together with many similar facts which we are wont to unravel during dissection concerning the nature of the parts, and also the method of dissection applicable to dead and living animals. Moreover, the books contain representations of all the parts inserted in the text of the discourse, in such a way that they place before the eyes of the student of Nature's works, as it were, a dissected corpse.

Thus in the First Book I have described the nature of all bones and cartilages, which, since the other parts are supported by them, and must be described in accordance with them, are the first to be known by students of anatomy. The Second Book treats of the ligaments by which the bones and cartilages are linked one with another, and then the muscles that affect the movements that depend upon our will. The Third comprises the close network of veins which carry to the muscles

and bones and the other parts the ordinary blood by which they are nourished, and of arteries which control the mixture of Innate Heat and Vital Spirit. The Fourth treats of the branches not only of the nerves which convey the Animal Spirit to the muscles, but of all the other nerves as well. The Fifth explains the structure of the organs that subserve nutrition effected through food and drink; and furthermore, on account of the proximity of their position, it contains also the instruments designed by the Most High Creator for the propagation of the species. The Sixth is devoted to the heart, the *fomes* of the vital faculty, and the parts that subserve it. The Seventh describes the harmony between the structure of the brain and the organs of sense, without, however, repeating from the fourth book the description of the network of nerves arising from the brain.

Now in arranging the order of these books I have followed the opinion of Galen, who, after the account of the muscles, considered that the anatomy of the veins, arteries, nerves, and then of the viscera should be handled. But with very great reason it will be urged, and especially in the case of a beginner in this science, that the study of the viscera ought to be combined with that of the distribution of the vessels, a course I have followed in the *Epitome*. This latter I have made to be as it were a footpath beside the highway of the larger book, and an index of what is set forth in it; and it is honoured with the splendid patronage of His Serene Highness Philip, Your Majesty's son, and a living embodiment of his father's virtues.

But here there comes into my mind the judgment of certain men who vehemently condemn the practice of setting before the eyes of students, as we do with the parts of plants, delineations, be they never so accurate, of the parts of the human body. These, they say, ought to be learned, not by pictures, but by careful dissection and examination of the things themselves. As if, forsooth, my object in adding to the text of my discourse images of the parts, which are most faithful, and which I wish could be free from the risk of being spoiled by the printers, was that students should rely upon them and refrain from dissecting bodies; whereas my practice has rather been to encourage students of medicine in every way I could to perform dissections with their own hands. Assuredly, if the practice of the ancients had lasted down to our day, namely, to train boys at home in carrying out dissections, just as in making their letters and in reading, I would gladly consent to our dispensing not only with pictures, but with all commentaries. For the ancients only began to write about dissection when they decided that honour demanded that they should communicate the art, not only to their children, but to strangers whom they respected for

their virtue. For, as soon as boys were no longer trained in dissection, the inevitable consequence at once followed that they learned anatomy less well, since the training had been abolished with which they had been wont to begin in youth. So much so that when the art had deserted the family of the Asclepiads, and had been now for many centuries on the decline, books were needed to preserve a complete view of it. Yet how greatly pictures aid the understanding of these things, and how much more accurately they put the things before the eyes than even the clearest language, nobody can have failed to experience in geometry and the other mathematical disciplines.

But, however that may be, I have done my best to this single end, namely, in an equally recondite and laborious matter, to aid as many as possible, and truly and completely to describe the structure of the human body—which is built up, not of some ten or twelve parts (as seems to those who give it a passing glance), but of some thousands of different parts—and to bring to students of medicine a substantial contribution towards the understanding of those books of Galen treating of this branch of learning, which of all his writings most require the assistance of a teacher. Moreover I am aware [first] how little authority my efforts will carry by reason of my youth (I am still in my twenty-eighth year); and [secondly] how little, on account of the frequency with which I draw attention to the falsity of Galen's pronouncements, I shall be sheltered from the attacks of those who have not—as I have done in the schools of Italy—applied themselves earnestly to anatomy, and who, being now old men devoured by envy at the true discoveries of youths, will be ashamed, together with all the other sectaries of Galen, that they have been hitherto so purblind failing to notice what I now set forth, yet arrogating to themselves a mighty reputation in the art—[I know, I say, how little authority my efforts will carry] unless they come forth auspiciously into the light, commended by the great patronage of some divine power. And, in as much as it cannot be more safely sheltered or more splendidly adorned than by the imperishable name of The Divine Charles, The Most Great and Invincible Emperor, I beseech Your Majesty to allow this useful work of mine, which on many accounts and for many reasons is dangerous to itself, to circulate for a short time under Your Majesty's auspices, glory, and patronage, until through experience of the facts, through judgment which matures with time, and through learning, I may make the fruit of my toil worthy of The Most High and Best Prince, or may offer another gift worthy of acceptance on another subject chosen from our art.

And yet I am of opinion that out of the whole

Apolline discipline, and indeed out of the whole philosophy of nature, nothing could be fashioned more pleasing or more acceptable to Your Majesty than an account from which we learn of the body and of the mind, and furthermore of a certain divine power consisting of the harmony of both, in sum, of ourselves, whom to know is man's proper study. And, though I infer this from many arguments, yet my principal reason is that in the multitude of books dedicated to your grandfather of blessed memory, Maximilian, the Roman, The Most Great Emperor, none was ever more pleasing than a little book which dealt with the present matter. Nor shall I ever forget with what pleasure you examined my anatomical figures, and how carefully you enquired about every point, when my father Andreas, the first and most faithful of Your Majesty's physicians, once offered them for your inspection. I say nothing now of that love of yours passing belief for all sciences in general, but chiefly for mathematics, and especially for that branch of it that deals with the universe and the stars, and of your skill in it, which is wonderful in so great and heroic a man. So great is this that it can hardly be but that as you are attracted in an unique degree by the science of the universe, so also you should at times delight in considering the most perfectly constructed among all created things, and should take pleasure in considering what is the temporary dwelling-place and instrument of the immortal soul. For this in many particulars exhibits a marvellous correspondence with the universe, and for that reason was by them of old not inappropriately styled "a little universe."

But just as I said a moment ago that I did not at all regard this as the proper place for glorifying a knowledge of the human body, worthy as it is of the attention of man, and in itself to be commendable above all others, being a study moreover to which even at Rome men outstanding not only in their material circumstances but in philosophical training delighted to apply themselves; so also, bearing well in mind the wish of Alexander the Great who would have himself painted by none but Apelles, cast in bronze only by Lysippus, nor carved by any but Pyrgoteles, I have thought it still less fitting for me to attempt any estimate of your glories, lest by my bald and unpractised style I might obscure rather than illuminate them. Especially since we ought assuredly to condemn the formality too frequently admitted in prefatory addresses, in which with complete lack of discrimination and, as a rule, to a degree far surpassing the deserts of him to whom they are addressed, as if in accordance with a stereotyped formula, and merely for the sake of securing some cheap reward, there are ascribed to everybody a degree of learning to which we must look up, unexampled

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THE GROWTH AND DEVELOPMENT OF THE RHODE ISLAND MENTAL HYGIENE SERVICES*

CHARLES C. GOODMAN, M.D.

The Author, Charles C. Goodman, M.D., Chief Clinical Psychiatrist, Rhode Island Mental Hygiene Services.

IN ORDER TO present a clear picture of the Rhode Island Mental Hygiene Services as they exist today I will review briefly the historical origins of the present service. Our clinical program, now nine years old, is the natural development of pre-existing programs dating back a number of years.

In the beginning, as is often the case today, there was a survey. This "Mental Hygiene Survey" of 1922 pointed to a need for "psychological examinations for the State wards" and advised the Public Welfare Commission to employ "a psychologist." Thus in 1923 "Psychological Services" was born.

Mrs. Vinnie Hicks became the first state psychologist and items from her first annual report outline the scope of her work as she perceived it:

The examination of . . . such cases in . . . institutions as may be incorrectly placed when their . . . intelligence is considered.

. . . Clinics in several parts of the state (which) would have as workers not only a psychologist, but a psychiatrist and a social worker.

The examination of cases for courts and social agencies, problem cases in the public schools and an intensive study of children in State institutions and of atypical children in general, to formulate wise plans for prevention of delinquency and pauperism in later years.

The establishing of a "Cast Catalogue," as a clearing house for all state cases.

A consistent effort to give a better understanding to its citizens of the mental problems of the state, both by talks to philanthropic and educational organizations, and by close cooperation with the social agencies already organized.

The closing paragraph of the thirty-three-year-old report is indeed almost dateless.

"Any report on feeble-mindedness is unsatisfactory because it sounds so gruesome as to seem untrue. A cancer is gruesome, yet we do not hesitate

*Read at a meeting of the Rhode Island Society for Neurology and Psychiatry, held at Providence, Rhode Island, April 8, 1957.

to remove it. Feeble-mindedness is our community cancer. We must first recognize it, then remove it by every possible means, segregation, supervision, . . . Segregation in Rhode Island now means large expenditure for buildings and equipment at our Exeter School."

The history of psychological services in the ensuing quarter century is interesting. It demonstrates how the personnel, constantly beset by many obstacles, but principally by shortages of personnel and money, endeavored to reach the goals of that first report.

Not until 1945 were sufficient funds appropriated to provide for more than two psychologists! At that time the budget allowed for an administrator and three psychologists.

About 1929 Doctor Frederick Farnell, then Director of Public Welfare, introduced two new elements into the picture. Doctor Farnell arranged to "import" a psychiatrist at the correctional institutions to work with adults and children who were not "ill enough or defective enough to be either hospitalized in the State Hospital or cared for at Exeter School." His official title was State Psychiatrist. Thus, the original nucleus for our present-day Institutions Clinic began twenty-eight years ago.

In 1930 is found the first reference to a "Mental Guidance Clinic" emanating from the staff of the State Hospital. This was a community clinic traveling to the larger towns of the state, providing diagnostic service and such treatment as time permitted. Sources of referral were social agencies and schools. The original program was under the supervision of Doctors Hugh Kiene and Jacob Kasanin. The team consisted of psychiatrist, social worker and psychometrist. Comparatively speaking, it was able to offer only a few hours' service per month to the community. It did creditable work but did not have any direct relationship with other organizations functioning in the state. Due to personnel shortages during the war years, this traveling clinic eventually dissolved and did not reappear until 1948 when our present-day Mental Hygiene Services began.

The real impetus for the establishment of a permanent community clinic program, not only for

Rhode Island but for the nation, was the National Mental Health Act of 1946, which made possible the use of federal funds for Community Mental Health Services.

Another Rhode Island survey, the Griffenhagen Report of 1947, made recommendations which were to appear gradually as Mental Hygiene Services developed. This report recommended the establishment of extramural services responsible for programs relating to the prevention of mental illness, operation of mental hygiene clinics, and the encouragement of community child guidance clinics. It also recommended that the position of state psychiatrist be abolished and his duties transferred to the chief of extramural services who should be a psychiatrist. Here too we find the suggestion that the "Division of Psychological Services" be abolished and its services merged into a coordinated extramural service.

The Rhode Island legislature passed enabling legislation in 1948 that permitted the state to utilize the provisions of the National Mental Health Act of 1946. Thus, for the purpose of receiving federal funds, the Office of Director of the Department of Social Welfare was designated the State Mental Health Authority. In the fall of that year the new Community Clinic began operating on a federal grant of about \$20,000. Over the years this federal allotment has increased only to \$25,000, whereas the state contribution to the program has grown to approximately \$120,000. However, not all of this goes to Community Clinical Services.

In 1949-50, its first full year, the original team of psychiatrist, psychologist and social worker served adults and children at its Fountain Street headquarters, at the Children's Center on Mt. Pleasant Avenue, and traveled periodically to Woonsocket. The following year, service was extended to Westerly, and in 1953 to Newport. At present only the Westerly trip has been discontinued, due to lack of referrals, but Newport and Woonsocket requests have been gradually increasing.

As the Mental Hygiene infant grew stronger, plans were made to consolidate and incorporate psychometric services and the position of state psychiatrist. By August of 1951, Mental Hygiene Services was broadened to include three clinical teams — Community Clinic, Child Welfare Services, and Institutions Clinic. The following year the Governor "requested" the Departments of Health, Education, and Social Welfare "to develop a program for the rehabilitation and education of retarded children." As part of this program a fourth clinical team, which was to be primarily a diagnostic service for retarded children, was added to Mental Hygiene Services. Since that time there has been a period of relative stabilization and program development.

The four clinical teams just mentioned provide a fairly comprehensive coverage in the following way.

Community Clinic

This clinic is a general purpose psychiatric clinic for adults and children. It is the policy of the clinic to provide help to all who ask for service and to render service immediately for emergency cases. The kind of help may be as simple as directing an individual to a more appropriate community resource or may involve individual psychotherapy for a prolonged period. Referrals come from the various social agencies—both public and private—courts, schools, physicians, clergy, and self-referrals by the patient.

A person seeking help usually calls for and receives an appointment with the psychiatric social worker, who obtains a social history from the patient or parent and gathers other pertinent data from outside sources when indicated. The problem is then reviewed in a screening conference with the entire professional staff, and arrangements are made for a medical interview. Depending on the nature of the problem, psychometric and psychological examinations may be done prior to the medical appointment or left to the discretion of the examining physician. Following the psychiatric evaluation there is a further review and consultation with the professional staff in order to arrive at the best plan for the patient.

The more emotionally disturbed patients who are amenable to psychotherapy are accepted for treatment by the psychiatrist. In many instances, when the patient can best be helped on a casework basis, the clinic offers diagnostic and consultation service to the referring agency. If no agency is active in the situation, the clinic may make a referral to an agency suited to accept responsibility for continuing help to the patient, or the psychiatrist may suggest that the clinic social worker see the patient in regular interviews for psychiatric casework service.

Child Welfare Clinic

Mental Hygiene offers diagnostic and treatment services to children under the care of the State Child Welfare Services because of neglect or dependency. This clinical team has offices at the Children's Center on Mt. Pleasant Avenue. A considerable amount of the clinic's time is spent in consultation about cases presented by the social workers of the Child Welfare staff, and the clinic's staff also participates in weekly staff conferences conducted by the agency. The orientation of the psychiatric approach is a dynamic one, with emphasis on the value of modern concepts of psychological development and of interpersonal family and social interactions. Motivations for individual symptoms, for antisocial behavior, for school prob-

continued on next page

lems, and for other behavior disorders are sought in the individual personality and the social constellation. The intellectual performance of the child is also viewed in this light, to evaluate his capacities and potentialities for present and further adjustment.

The final diagnosis of each case is thus a multidimensional one, which takes into consideration the psychobiological needs of the subject, the dynamics of the interpersonal relationships, as well as the expectation of the social role as structured by the community. Individual play therapy is offered to a limited number of children with emotional disturbances. A larger number of children are followed by consultation between the caseworker of the agency and the clinic staff.

Institutions Clinic

This clinic, with offices at the Boys' Training School, provides psychiatric and psychological services for the adult and juvenile correctional institutions. Psychiatric evaluations are made at the request of the Juvenile and Adult Courts, the Parole Board, and the Board for Defective Delinquents. All individuals eligible for parole are seen by members of the clinic team. Psychiatric examinations are given and evaluations with recommendations made at the request of the Director of Correctional Services, the prison physician, the warden, the deputies and the superintendents of the training schools. In addition, individuals confined at the various penal and correctional institutions who are manifesting emotional and behavioral disorders are seen by the clinic team. A limited number of inmates at the adult institutions are also seen on a regular psychotherapeutic basis. The Institutions Clinic also provides neurological consultations on request from the resident physician. For the juvenile institutions we have recently commenced a group therapy program with the psychiatrist as group leader and a psychiatric social worker as recorder.

Retarded Children's Program

Now in its third year, this unit continues its primary function, which is the study, diagnosis, and treatment or planning for children who are known or presumed to be mentally retarded.

This team operates at the 40 Fountain Street headquarters. In the past three years over 500 children have been evaluated. This clinic has played an active part in pointing up the need for special educational facilities for retarded children and has worked closely with the Department of Education and the Parents' Council for Retarded Children, during the past two years. We are now gratified to find at least twelve special classes for trainable and educable children in the public school system. We also are cooperating with the Com-

munity Workshops, which is undertaking a pilot project of a sheltered workshop nature, to provide vocational training for some of the older children.

The clinical teams to which I refer are not rigidly fixed in terms of personnel, for we feel all our professional staff should be able to function in any area and, therefore, provide for rotating service. The team is fixed in relation to an individual case, for the same team members share responsibility from the original intake process to final disposition. The original team consisted of psychiatrist, psychologist, psychometrist and psychiatric social worker. This 1:1 ratio looks somewhat unwieldy, to say the least, but in our development there has been a considerable carry over of purely psychometric testing. Gradually we are modifying this ratio in the direction of a 2:1:4 relationship between psychiatrist, psychologist, and social worker. This is more nearly in line with community clinics elsewhere.

In addition to the clinical team, we have an administrative team of chiefs for each professional discipline. The chiefs of service have direct responsibility for the quantity and quality of work of their professional colleagues, but also share responsibility for program development and represent the service directly in dealing with other departments and agencies on levels other than clinical.

I do not wish to place undue emphasis on statistics, but the following items do give a brief picture of our total operation. In the last fiscal year a total of \$138,109.99 was spent to operate Mental Hygiene Services, \$19,107.80 of which was financed by federal funds. A total of 3,041 individuals were served in all clinics, and of this number 1,367 were seen through the Community Clinic. A review of the number of interviews gives a total of 2,744 psychiatric interviews, 1,727 psychological interviews, and 2,202 interviews by psychiatric social workers, a grand total of 6,673 interviews for the year.

The staff of Mental Hygiene would include thirty-two positions, if we were up to our full complement, but for the last year only about 75 per cent of our positions, professional and clerical, have been filled.

The five functions of Mental Hygiene Services are diagnosis, treatment, consultation, education, and research. The first two clinical areas I have already outlined. Consultation service is offered to schools and community groups to help local areas define mental health problems and to establish mental health services at a local level. The relationship to the state program and the way continuing local service might be offered is a part of this. Some of it borders on an educational program, where all services may work together to promote better total community mental health practices. In addition to

this, increased understanding of the emotional needs of people and the early detection of emotional problems becomes important. Consultation service is offered to all referring agencies and people on a case basis. After a psychiatric evaluation by the clinic, members of the staff are available to those making the referrals, in order to increase the understanding of the needs of the patient and to develop a plan of treatment whereby all resources may be used most effectively to assist in the adjustment of the individual. Realizing that formalized psychotherapy is neither indicated nor available in many instances, it is felt that this is an effective way of utilizing the specialized knowledge and skills of the disciplines of psychiatry, psychology, and psychiatric social work.

The educational program is both extramural and intramural. Members of the staff of Mental Hygiene Services are available to community groups, such as parent-teacher associations, churches, fraternal and professional associations, to show films, give lectures, and act as discussion leaders in bringing mental hygiene concepts to the community. This is an important part of the whole preventive program. By the incorporation of these concepts into both program planning and individual thinking of parents and professional people, higher standards of mental health may be achieved. Case conferences, staff meetings, research projects, and consultation with other community agencies are methods by which the staff continues their training. It is important that our staff have an increased awareness of the role of other agencies in the community and how their work and that of a clinical psychiatric service may be integrated to improve mental health service.

As in other functions of the mental health program, research interest also involves the facilities and special skills provided in each of our clinics. Since at the moment, there are no funds clearly allocated for research and since the greatest portion of our professional time is already consumed in developing a clinical program, our efforts in research have been limited. However, on the basis of ongoing population surveys within each of the clinic services, areas for research are being defined. This type of activity is of importance in the process of program development. During the year, preliminary reports on three specific research projects were prepared and published in the monthly bulletin of the Department of Social Welfare.

In addition to the activities already mentioned, there are other community aspects of mental health which merit considerable time and attention and which can be more readily accomplished through the kind of program represented by Mental Hygiene Services than under private auspices. Because of the public nature of our program, we are often in communication with professional consul-

tants in the Department of Health, Education, and Welfare through the New York regional office. These consultants have been of considerable support to us in developing our own state program and in keeping us informed about events in other areas. For several years we have been meeting regularly with professional personnel in other state programs on a regional basis in what is known as the Northeast State Governments Conference on Mental Health. Thus, we can be informed personally of developments in the northeast part of our country and nationally through representatives of the Council of State Governments, who participate in these regional meetings. The programs discussed at these conferences are designed to help professional people in the field of mental health to find ways of solving the most urgent problems. For example, the main theme of the next conference, to be held later this month in Pennsylvania, will be the "manpower problem" and "interstate methods of solving the manpower problem."

Another way in which we cooperate with other programs nationally, is by serving as the central point in the state for gathering statistical data on out-patient clinics for the Biometrics Branch of the National Institute of Mental Health in Washington. Statistical reporting from mental hospitals we take for granted. Until three years ago, however, there was no uniform method of reporting on services rendered by out-patient clinics. Only when this is done will we be in a position to compare clinics, estimate the true national mental health picture and plan for the years ahead.

The future of Mental Hygiene Services will be determined, to a great extent, by its relation to the various communities in Rhode Island. It is unlikely that we will grow much larger in terms of clinical teams or total numbers of staff. I do not think it is either practical or wise to expect a centralized service to provide complete psychiatric service on a state-wide basis, even in an area as small as Rhode Island. I do feel that a central service can help communities to understand the problems, discover the unmet community needs in the mental health area, and devise ways and means by which the communities can help themselves to solve these problems. If Mental Hygiene can make progress in this direction, then our future development should be most challenging, stimulating, and satisfying.

JUNE 12 . . . Annual Dinner

And Golf Tournament of the

Providence Medical Association

PESTICIDES

A Report from the Committee on Industrial Health

DURING THE past few years summary reports of articles on pesticides have been published in this Journal by the Society's committee on industrial health. Recently the committee was submitted a copy of the National Agricultural Chemicals Association's NEWS AND PESTICIDE REVIEW which published several articles of pertinent concern to the professional generally, as well as to the public. This publication is on file at the Medical Library for reference by members of the Society.

It is worthy of note that a recent amendment to the Food, Drug and Cosmetic Act gives us additional assurance that food treated with pesticides will be practically guaranteed safe for consumption as far as the public is concerned. Public Law 518 will be the basis of control scientifically, the amount of chemical residues that can remain on crops sprayed with pesticides to destroy the estimated 7,000, of the 80,000 pests in existence that are injurious to growing plants. Many residues are as low as one part per million; others are either dissipated because of their chemical structure, or are not harmful to man.

Safety measures in the use of pesticides must continue to be observed. Degrees of tolerance have been scientifically established and with this knowledge we are aware that no chronic conditions previously experienced will develop. It has been stated that pesticides are the most thoroughly tested chemicals on the market today before they are released for use by the farmer, or the amateur gardener. New regulations will make for fewer new pesticides offered for sale, as was the case shortly after the war when the market was flooded with such chemicals. We are appreciative of the new controls on pesticides, and at the same time we recognize the constant need for safety in the use of these chemicals, and therefore we reprint *Safety Tips* from the NATIONAL AGRICULTURAL CHEMICALS ASSOCIATION publication as follows:

1. *Always read* the label before using pesticide sprays or dusts. Note warnings and cautions each time before opening container.
2. *Keep sprays and dust away* from children, pets and irresponsible people. Store pesticides in a secure place away from food and feed.

3. *Don't smoke* while spraying or dusting, and avoiding inhaling sprays or dust.
4. *Do not spill* sprays or dust on the skin or clothing. If they are spilled, remove contaminated clothing and wash exposed skin areas thoroughly.
5. *Use separate equipment* for applying hormone-type herbicides to prevent accidental injest to susceptible plants.
6. *Dispose of empty containers* so that they pose no hazard to humans, animals or valuable plants.

CLINICAL MEMORANDA ON ECONOMIC POISONS

Physicians may secure through the U. S. Government Printing Office, Washington 25, D. C., a publication listed as PHS PUBLICATION NO. 476, at a cost of thirty cents, which gives a summary of reports of human poisoning cases, furnished by physicians, and gives a comprehensive review on the human toxicology of pesticides.

Any physician encountering a case of human poisoning involving pesticides is urged to furnish information on the case to the U. S. Public Health Service, Communicable Disease Center, Technology Branch of the Technical Development Laboratories, P. O. Box 769, Savannah, Georgia.

PREFACE OF ANDREAS VESALIUS *concluded from page 277*

prudence, wonderful clemency, keen judgment, indefatigable generosity, wonderful love of men of letters and of learning, ripe despatch in the conduct of affairs, in fine the whole galaxy of virtues. But that Your Majesty excels all men everywhere in them, no less than in dignity of rank, in prosperity, and in the success of your exploits, even though it be proclaimed not here by me, is patent to the understanding of all. Wherefore while you yet live you are venerated as an exalted divinity. And my prayer is that the Gods should not grudge this happy lot to learning and the whole world, but should long guard and preserve it for mankind in security and in uninterrupted blessedness.

Padua, August 1, A.D. 1542.

PROGRESS AND FUTURE PLANS OF THE STATE DIVISION OF ALCOHOLISM

HELENA H. SHEA, M.A., AND LAURENCE A. SENSEMAN, M.D.

The Authors, *Helena H. Shea, Clinical Psychologist, Rhode Island Division of Alcoholism. Lawrence A. Senseman, M.D., Chairman, Advisory Council, Rhode Island Division of Alcoholism.*

THE STATE DIVISION of Alcoholism was set up within the Rhode Island Department of Social Welfare and opened its doors to the public in January, 1952. Its functions include treatment, research, and education in the field of alcoholism. Since its foundation the Department has expanded; this report is an effort to bring the physicians of Rhode Island up to date as to what has been going on and as to plans for the future.

The Clinic, at 94 Doyle Avenue, is headed by Doctor Trawick H. Stubbs, acting administrator and assistant director, Division of Curative Services. Doctor Arthur M. Dell is full-time psychiatrist. Doctors Vsevolod Sadovnikoff, Raymond Willard, and Oscar H. Hyer are employed as part-time doctors, the first two as psychiatrists and Doctor Hyer as physician. Doctor Oliver S. Lindberg works part-time at the penal institutions. The professional staff also includes three psychiatric social workers, one clinical psychologist, a psychiatric nurse, an attendant, and a technical assistant who frequently acts as liaison between the Clinic and Alcoholics Anonymous. The Clinic is open Mondays through Fridays from 8:30 A.M. to 4:30 P.M., on Saturday mornings 8:30 A.M. to 12:00 NOON, and on Thursday evenings from 6:30 P.M. to 9:30 P.M. Treatment is provided at all times, except on Thursday evenings, when the sessions are given over to interviews, individual therapy and group therapy.

The Clinic is equipped to care for nine bed patients in its dry-out section. During the three-day course of medical treatment at the Clinic, patients are given the following drugs, the dosage varying according to the physical condition: Adrenal Cortical Extract, solution glucose/saline, suitable vitamin preparation, especially B complex and C, Thorazine, and Antabuse.

When the dry-out treatment for drunkenness is completed, each patient will have been seen by a social worker and a psychiatrist. The patient is then assigned for therapy, either individual or group.

Antabuse and referral to A.A. are also prescribed, but not necessarily with every patient. If the alcoholic is too ill to be treated as an out-patient at the Doyle Avenue Clinic, he is referred to the State Hospital for Mental Diseases.

All alcoholic patients at the State Hospital are under the care of the Division of Alcoholism, whether they enter as voluntary patients, are committed by the courts, or go in as Department of Social Welfare admissions which means that they are admitted upon the recommendation of two physicians.

When a patient requires medical care other than treatment for alcoholism, he is referred by the clinic doctors to his private physician. It should be pointed out that the State Division of Alcoholism never competes with the family doctor. Any alcoholic may come to the Clinic. If he is able to pay, he is charged for the services. Physicians frequently refer their alcoholic patients to the Clinic for treatment because it is set up to give dry-out care and to provide a combined medical, psychiatric, psychological, and sociological approach to each alcoholic, an approach which is hard to duplicate in private practice.

For the most part, psychiatrists, social workers, and psychologists have been conducting group rather than individual psychotherapy, largely because the lack of staff members and the large number of patients make it almost impossible to do much individual therapy. However, the group arrangement does have certain advantages. Since the aim of therapy is to enable individuals to live more comfortably without alcohol and even to find that there are other ways of meeting problems than by drinking, patients are helped, through group interaction, to learn that their fellow alcoholics have problems similar to theirs, and that together they can work out new ways of meeting them. Individual therapy is certainly highly desirable for many of the patients who come to the Clinic, particularly for those who are different from the typical patient. Very young patients and pre-schizophrenic patients are frequently seen individually. Since Doctor Sadovnikoff has joined the staff, more hours are available for treatment. He is particularly interested in group psychotherapy.

He has just established a new therapy group of

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husbands and wives. In addition to this therapy program at the Clinic, group therapy sessions for women are held at the State Hospital, and for inmates at the penal institutions who feel that they have an alcoholic problem. These sessions are conducted by Doctor Oliver S. Lindberg of the Fuller Memorial Sanitarium.

In addition to medical and psychiatric treatment, the Clinic offers its facilities for social service to the patient, his family, and even to his employer, attempting thus to interpret the alcoholic's sickness to them, and enabling them to have a better understanding of the patient, so that they will be more helpful to him in his struggle to regain sobriety. Patients are referred frequently to the clinical psychologist for several reasons. Usually psychological studies are done to determine the level of intelligence, to make personality evaluations, to check for possible schizophrenic or organic signs and for occupational interests. Thus it will be seen that, in the treatment program, there is a multi-dimensional approach, utilizing all available medicines and techniques. To aid further in this program, two of the staff members attended the Yale Summer School of Alcohol Studies in New Haven during the past summer. To date almost three thousand (3,000) patients have been admitted to the Division of Alcoholism and the Division feels that the treatment program is satisfactorily developed, and that it is now time to turn to at least one of its other functions for expansion and development.

Since alcoholism is the fourth leading public health problem in this country and is a sickness which is surrounded by myths and misconceptions, it seems expedient that the Division of Alcoholism should begin the development of its program of education, in regard to alcoholism and its effects upon the human body and upon society in general. Alcoholism may be referred to as a disease, but it is usually considered to be a symptom of an underlying personality disorder and it may be studied from many angles. Treatment, however, depends upon a combination of techniques. Since personality disorders frequently have their beginnings during childhood and adolescence, programs of education in the field of alcohol are those which utilize the techniques advocated by workers in mental hygiene. The aim of education today is the prevention of alcoholism, through understanding, and not through fear or threat. The schools have the best opportunity and also the responsibility to teach facts about alcohol. The State of Rhode Island has the following law on this subject:

The school committees of the several towns shall make provision for the instruction of the pupils in all schools supported wholly or in part

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by public money, in physiology and hygiene, with special reference to the effects of alcoholic liquors, stimulants, and narcotics upon the human system.

In addition to instruction in the public schools, regarding which more will be said later, there is a much larger group of our population which should be furnished instruction on this topic, namely, the adult public. We in Rhode Island have lagged far behind many other states in all areas of education about alcohol. For example, every summer, several states send, through state scholarships, twenty to thirty professional people, including doctors, nurses, teachers, social workers, psychologists, and clergymen to the Yale Summer School of Alcohol Studies. Professional people come from many foreign countries to study there, yet Rhode Island has sent only two students to the Yale Summer School in the eleven years of the Summer School's existence. Unless our professional people, particularly our educators and public health workers, are educated in this area, we cannot expect to instruct adequately either children or adults; therefore, the Division of Alcoholism hopes to be able to stimulate sufficient interest among state departments and professional people, so that Rhode Island will be adequately represented each year at such schools as the Yale Summer School of Alcohol Studies. In addition, a program of education for the general public is to be developed, utilizing all media of communication such as books, pamphlets, posters, radio, television, and films. In regard to films, several films about alcohol are available, and the Division of Alcoholism hopes soon either to own these films or to be able to obtain them, whenever they are desired by any lay or professional group. The Division also hopes to act as an information center and as a source of material which may be given or loaned to other agencies, individuals, and institutions. In addition to films, it is hoped that the Division will be able to supply discussion leaders. The Division, during recent months, maintained a display at the Union Station. This display may be placed at other public places, and provides in an interesting and brief way, information about alcoholism, the Clinic at Doyle Avenue, and Alcoholics Anonymous.

A much more difficult and challenging problem is the establishment of a program of education about alcohol in the various school departments in the state, but the first step in this direction has already occurred with a workshop on alcohol education.

In regard to research in the field of alcoholism, some slight progress has been made with social and psychological studies, but it would appear that this area will perhaps wait upon developments in the

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FIRST WORLD CONFERENCE ON MEDICAL EDUCATION

IN THE LONG HISTORY of medical education we know of nothing more impressive than the proceedings of the *First World Conference on Medical Education*, now available in our Medical Library. The conference was held in London in August, 1953 under the auspices of the World Medical Association. More than 600 men and women, representing 127 faculties and 62 countries came to London to teach and to learn. So successful was the conference that the World Medical Association is encouraged to repeat the experiment by proposing to hold the Second World Conference on Medical Education in 1958, probably in North America.

The president of the conference was the late Sir Lionel Whitby, Regius Professor of Physic, University of Cambridge, who titled his presidential address, *The Challenge to Medical Education in the Second Half of the Twentieth Century*. The world, said Sir Lionel, has now become so shrunken, because of modern communications, that we can no longer take a parochial view of our problems, whether they be economical, political, social, or, above all, medical, since medicine mercifully knows no national boundaries and happily has the same ideal in all countries. Even when countries are at

war their medical professions can cooperate and be at peace with one another.

In preparing for any calling there are challenges from three directions; these are directed at the teachers, at those they teach and at what they teach. The teacher should be equipped not with knowledge only, but, what is equally important, with the ability to transmit his knowledge vividly, so that he may become by precept and example, a source of inspiration to his students. He should endeavor to make the minds of his students creative implements and not merely receptacles.

What is the challenge to the student? There are certain qualities essential to all students; for it is not difficult to draw a brief picture of the ideal medical student—cultured, broadly educated in the humanities, intelligent and intellectual, of transparent integrity, humane and sympathetic, and, above all, one who will love his profession as well as his fellow men in all their weaknesses, their joys and their sorrows.

Therefore, continued Sir Lionel, it is reasonable to suggest that the profession of medicine, being recruited from the upper one-third stratum of the normal distribution of intelligence, should be com-

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posed of something better than a high average. Medical students must be recruited on individual qualities and ability, quite independent of family, of personal fortune, of class or family distinction.

And the challenge to medical education? At the present time the first challenge to medical education is the challenge to education itself. Has a particular country so ordered its educational system that a proportion of its youth will be fit to be enrolled in the most exacting profession in the world? If this is not so, then the omission should be rectified; for there is little point in making fine or even coarse adjustments in the medical curriculum if the soil is not prepared.

The content of the curriculum is obviously important. Let us look for a moment at some of the many things of which the medical student should have at least some knowledge. Nuclear physics, colloid science and enzyme chemistry have provided us with new instruments of thought and practice. The bacteriologist has come to govern the surgeon in the operation theatre, the nurse in the ward, the cook in the kitchen, the practicing doctor who uses antibiotics and the public health worker who is concerned with community infections. The problems of blood transfusion, at one time seemingly simple, are now an affair of genetics, specialized serology and statistical analysis. Even clinical experience and a flair for diagnosis can no longer be regarded as infallible guides to ultimate clinical truth: the opinion needs to be checked by means of which the clinician may be profoundly ignorant, for medicine is coming to draw even more heavily on the more exact basic sciences and to become more precise and scientific in the formulation and execution of its tasks.

The challenge to our universities and medical schools is a simple one. Are we preparing our students to grasp at least the principles behind all this scientific work? Does the student leave the university or the college with an understanding of the methods of science and with some knowledge of its history? The doctor of the future will have to be grounded more firmly in the basic sciences than was the student of twenty or thirty years ago; otherwise he will not be prepared to meet the challenge of advancing knowledge which is making medicine a more complete science. Medicine is much more than a technology—it is a profession. Among those in a position to know it is believed that there is now some poverty of mind in the finished medical and science graduate, because of the lack of general education in the humanities, literature, language, history, philosophy and the arts. More and more, we are becoming aware of the dangers of too early specialization in science among those who are going to be graduated in science and in medicine.

The study of man in relation to his environment, human ecology, is the fundamental basis of what

is now called social medicine; and the challenge to meet this growing consciousness of the importance of social medicine comes from within as well as from without the medical profession.

In summary, the undergraduate teacher should aim at producing an educated person grounded in principle and method, able to see what the whole of medicine stands for and means, trained to observe with his hands and his senses, encouraged to think logically and critically, instructed in the use of the instruments of measurement and precision, and equipped with a basic knowledge upon which he will continue to build for the rest of his professional life.

Such, in briefest outline, is the content of Sir Lionel's splendid address which was illustrated and amplified by the many contributions of the other members of the conference. If one were to condense into a sentence the general philosophy of the conference as regards medical education, it would seem to be that, as Cardinal Newman declared many years ago, the primary purpose of medical education, as of all education is, to train the intellect to reason well in all matters, to reach out towards truth, and to grasp it.

ANDREAS VESALIUS

In 1543, surely an *annus mirabilis* in the history of medicine, there was issued from the press of J. Oporinus in Basel, a folio volume, the *De Humani Corporis Fabrica, the Structure of the Human Body*, by Andreas Vesalius. The author, a young Belgian, still in his twenty-eighth year, was professor of surgery and anatomy in the far-famed city of Padua, "Nursery of the Arts." We all know that Vesalius did for anatomy what Harvey did for physiology and Sydenham for clinical medicine; but few of us, perhaps, have had the opportunity of reading Professor Benjamin Farrington's splendid translation of the preface to the *De Fabrica* which we are privileged to reprint in this issue of the JOURNAL.

Vesalius was born in Brussels, 1514; professor at Padua, 1537-1546, while he taught also at Bologna and Pisa; died 1564, shipwrecked on the island of Zante. He was a characteristic product of the renaissance, for as Doctor Charles Singer says, "The Womb of Time was in labor and brought him forth. His intellectual father was the Galenic science that had gone before him. His mother was that fair creature, the New Art, then in the very bloom of her youth. Until these two had come together there could be no Vesalius. When these two had come together there had to be a Vesalius. If it be genius to be such a product of one's age, then Vesalius was a genius."

Why is Vesalius the creator of modern anatomy? Because he learned and taught others to learn directly from things, not from words about things. He saw clearly that it was no longer useful to sit

perched on the professor's cathedra, giving a didactic lecture expounding the text of Galen or Mondino. He is famous, not for the facts he discovered, for as to these he was equaled or even surpassed by Eustachius and Fallopius; he is unique as the founder of modern anatomy because, as he says in the preface to his immortal book, "But this ambition of mine would never have succeeded if, when I was studying medicine at Paris, I myself had not applied my hand to this business."

NEW ENGLAND SOCIETY OF ALLERGY

Because there is a growing interest in the study and treatment of allergic conditions, the New England Society of Allergy was born recently in Boston. The charter provides that this Society shall be composed of "all physicians and others who are working in allergy or in allied fields, who have a real interest in these fields." The by-laws say that "Any resident of New England who is a physician interested in allergy or a worker in an allied field shall be eligible for membership."

The first meeting of the Society was held on March 27, 1957 at the Children's Hospital in Boston. The subject of discussion was *Asthma, its Mechanics and Management*. At the evening session there was an address on *Adrenal Steroids: Biosynthesis and Physiology*. Doctor Francis H. Chafee reports, "It was a superb meeting. The discussion on the *Mechanics of Asthma* and the motion picture were very dramatic. The evening address was by a man who had a profound knowledge of his subject. By and large he was way above our heads, yet the philosophy which he imparted was one which stimulated all of us."

Those desiring to join the Society are invited to communicate with the secretary, Harry L. Mueller, 300 Longwood Avenue, Boston, Massachusetts.

NEW ENGLAND PEDIATRIC ESSAY PRIZE

To stimulate an interest in clinical investigation and accurate reporting of pediatric problems, the New England Pediatric Society is offering an award of \$200 for the best paper submitted by an intern, resident or fellow, who is connected with a teaching hospital or medical school in the New England area. The paper should deal with one or more pediatric cases, of special interest or significance, with appropriate supporting literature, and discussion. The winner will be announced at our first meeting of the Society in the fall, and the paper will be submitted for publication in the NEW ENGLAND JOURNAL OF MEDICINE.

Papers should be submitted to Dr. Harry Shwachman, Secretary, New England Pediatric Society, 300 Longwood Avenue, Boston, Massachusetts, by June 30, 1957.

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OFFICERS INSTALLED FOR 1957-58

DOCTOR GEORGE W. WATERMAN, Providence gynecologist, was installed on May 1 as the ninety-eighth president of the Rhode Island Medical Society, the nation's ninth oldest state medical association. He succeeded Doctor Charles L. Farrell of Pawtucket.

Named as vice-president was Doctor Stanley Sprague of Pawtucket, and as president-elect to succeed Doctor Waterman next year, Doctor Francis B. Sargent of Providence. Doctor Thomas Perry and Doctor John A. Dillon, both of Providence, were re-elected secretary and treasurer, respectively.

The new head of the State Medical Society is president of the Rhode Island Cancer Society, and he has long been identified with the work of the Cancer Committee of the Medical Society. A native of Providence, he was graduated from Brown University and then completed his medical school training at Cornell Medical College. He served internships at New York Memorial and New York hospitals, and the Lying-In Hospital in the same city, prior to returning to Providence to establish his practice here.

A past president of the Providence Medical Association and of the New England Surgical Society, Doctor Waterman holds memberships in many regional and national medical associations. He is the former Surgeon-in-Chief of the Department of Gynecology at Rhode Island Hospital.

Pawtucket Physician Vice President

Doctor Stanley Sprague, Pawtucket urologist and for many years a leader in industrial medicine in the state, was named to succeed Doctor Joseph Johnston as vice-president. He is a graduate of Providence Classical High, and he completed his college and medical school work at the University of California. He served in the Canadian Medical Corps during World War I, and when he came to Rhode Island to establish his practice he held membership for many years in the State National Guard. He is a past president of the Pawtucket Medical Association, and of the New England Council of the Industrial Medical Association, and for many years he has been chairman of the Industrial Health Committee of the State Medical Society.

Providence Specialist President-Elect

The Society selected as its leader to follow Doctor Waterman a year hence, Doctor Francis B. Sargent, Providence otolaryngologist, who has been active in the affairs of the organization as chairman of its Medical Defense and Grievance, and its Group Professional Liability Insurance committees. A native of Lincoln, Massachusetts, Doctor Sargent was graduated from both the undergraduate and graduate schools at Harvard, receiving his medical degree in 1919. After internships at Massachusetts General, and Eye and Ear Infirmary, he established his practice in Providence, specializing in problems of the ear, nose, and throat.

Committee Chairmen Named

The House of Delegates, policy making body of the Society, elected the official standing committees in addition to the officers naming as chairmen of these committees the following: Committee on Industrial Health, Doctor Stanley Sprague, of Pawtucket; Library Committee, Doctor Irving A. Beck, of Providence; Medical Defense and Grievance Committee, Doctor Francis B. Sargent, of Providence; Committee on Medical Economics, Doctor Gustavo A. Motta, of Providence; Committee on Publications, Doctor Charles J. Ashworth, of Providence; Committee on Public Laws, Doctor James H. Fagan, of Providence; Committee on Public Policy and Relations, Doctor Arnold Porter, of Providence; Committee on Scientific Work and Annual Meeting, Doctor Marshall N. Fulton, of Providence.

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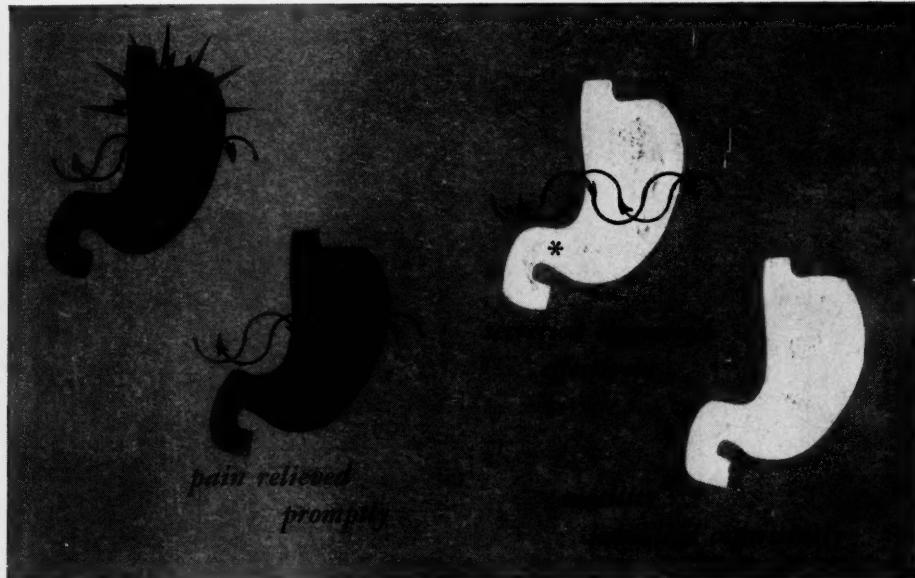
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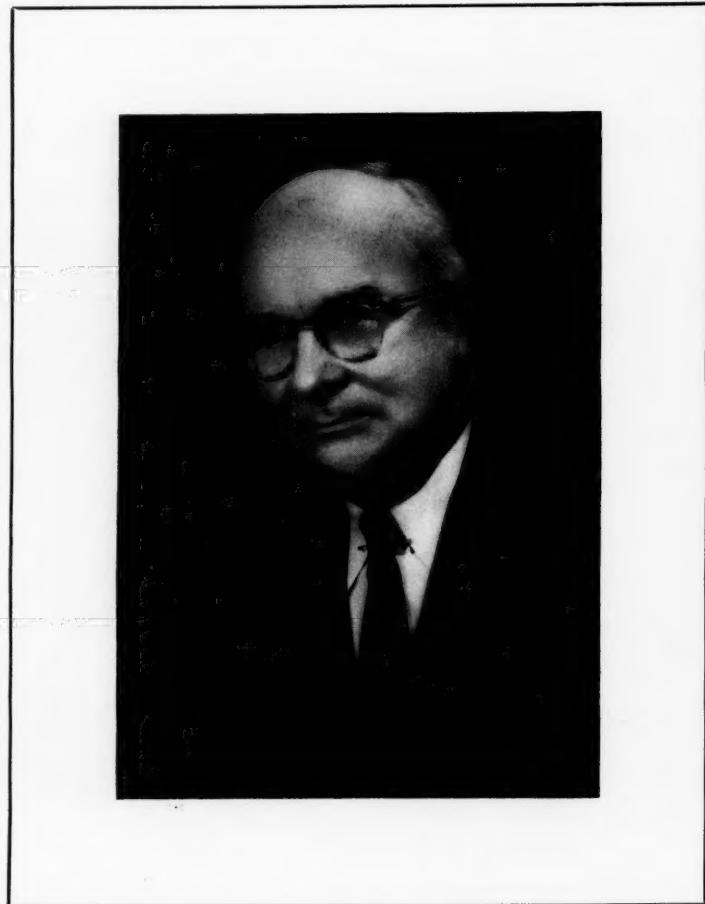
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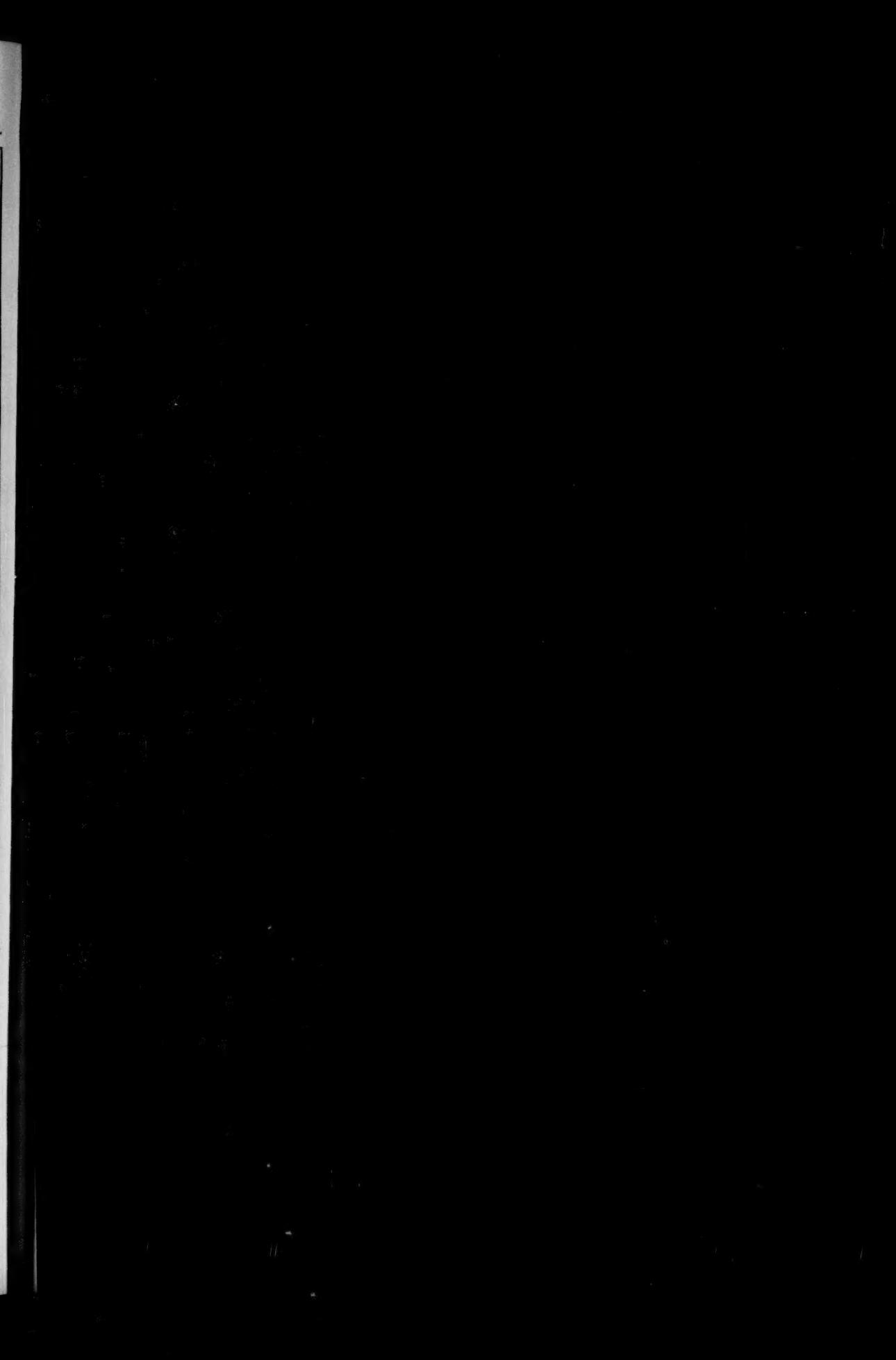
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*Lichstein, J.; Morehouse, M. G., and Osmon, K. L.: Pro-Banthine in the Treatment of Peptic Ulcer. A Clinical Evaluation with Gastric Secretory, Motility and Gastroscopic Studies. Report of 60 cases, Am. J. M. Sc. 232:156 (Aug.) 1956.

SEARLE



GEORGE W. WATERMAN, M.D.
of Providence, Rhode Island
President of the Rhode Island Medical Society
1957 - 1958



PRESIDENT'S MESSAGE

IT HAS BECOME customary for the new or incoming president each year to publish a message to the members of the Society, and it now becomes my pleasure to do so.

First of all, I would express my appreciation of the honor which you have conferred. Because of your trust I feel all the more the weight of the duties that have been passed on to me by my very worthy predecessor.

We are living in a century of evolutionary and almost revolutionary changes in medical, surgical, and health practices. Because of the discoveries of basic scientific research and their implementation by applied or clinical research, untold benefits have accrued to our people.

Programs for fostering further development of basic and applied research, for the building of hospitals and for new research laboratories are the order of the day in legislatures, in Congress, and in the great philanthropic foundations. Blue Cross, Blue Shield, and other voluntary insurance programs aim at bringing medical care within the reach of all. Veterans Administration care, and now Medicare for the members of the armed forces and their dependents, have been created. Labor Union welfare funds are in operation to care for the health of organized labor and its dependents.

All of these programs have been developed as a result of social and economic forces. As the resources and accomplishments of good medical and surgical care become more apparent, greater pressure has followed to insure that these vital services are available to all. These programs all center on the trained and skilled physician, for without the doctor, the best medicine, hospitals, and health plans are as nothing.

Too often, however, the doctor is overlooked, or looked upon as a mere technician in this planning, without being accorded the dignity and consideration that his long years of training deserve.

Without organization in such a rapidly moving scheme of events the doctor will be lost, the rights and privileges of a profession limited in number will be overwhelmed and overruled, as has happened in other lands.

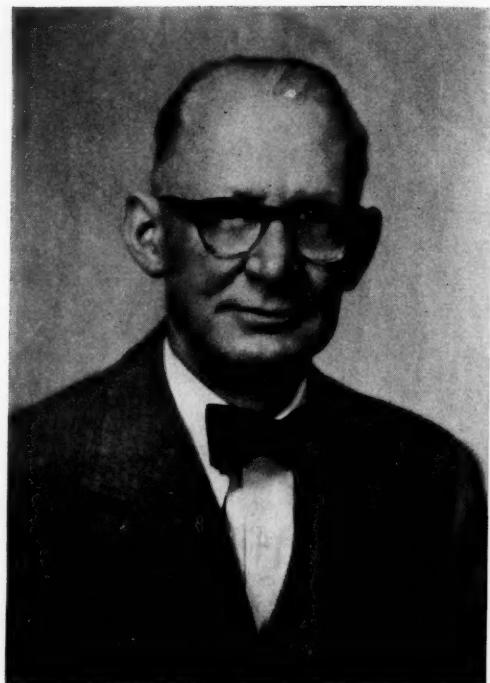
It, therefore, is incumbent on the doctor that he see to it that his organization functions, that its committees are well chosen, and that the members so honored live up to the requirements.

The few will be ineffective, except that they speak through strong organization.

As my predecessors have done so well, I again encourage you all to a renewed sense of obligation to your Society and to a renewed dedication to its best interests, thereby insuring the best medical care to our patients, which is the ultimate aim.

GEORGE W. WATERMAN, M.D., President

STANLEY SPRAGUE, M.D.
of Pawtucket, Rhode Island
Vice President of the Rhode Island
Medical Society, 1957-1958



FRANCIS B. SARGENT, M.D.
of Providence, Rhode Island
President-Elect of the Rhode Island
Medical Society, 1957-1958



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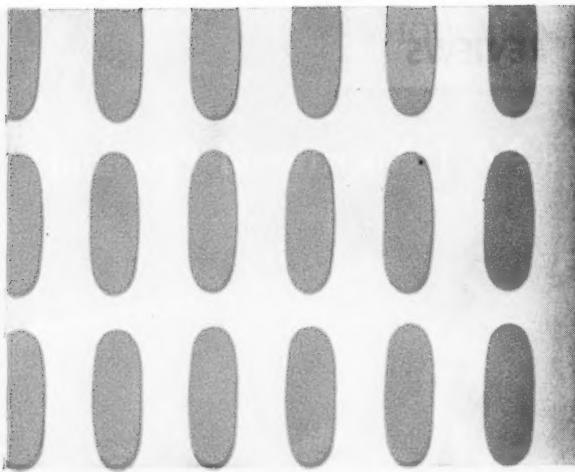
¹ The Food Exchange Lists referred to are based on material in "Meal Planning with Exchange Lists" prepared by Committees of the American Diabetes Association, Inc., and The American Dietetic Association in cooperation with the Chronic Disease Program, Public Health Service, Department of Health, Education and Welfare.

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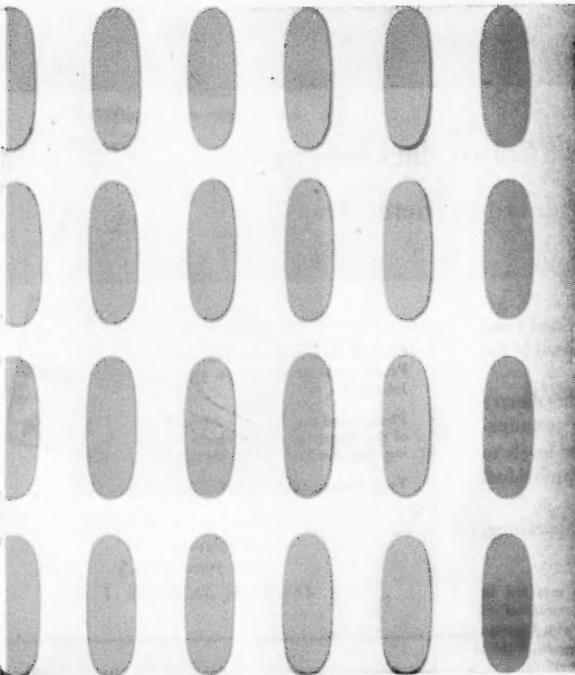




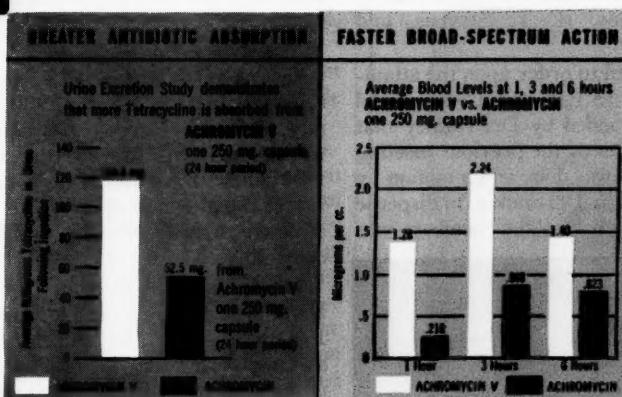
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DISTRICT MEDICAL SOCIETY MEETINGS

PAWTUCKET MEDICAL ASSOCIATION

The annual business meeting of the Pawtucket Medical Association was held at Memorial Hospital, March 21, 1957. The meeting was called to order by Dr. Raymond T. Stevens.

The following members were present: Doctors Billings, Bleyer, Forgiel, A. Gaudet, E. Gaudet, Gorfine, F. Hanley, R. Jaworski, Kelly, Mara, Metcalf, Rohr, Ruggles, Schiff, Senseman, Stanley Simon, Sonkin, Stapans, R. T. Stevens, and Zolmian.

The meeting was called to order upon the attainment of a quorum at 8:55 P.M. and it was moved by Dr. Forgiel and seconded by Dr. Hanley that the reading of the minutes of the previous meeting be dispensed with. This was done and a motion by Dr. Senseman, seconded by Dr. Sonkin, to dispense with the reading of the list of the members was

similarly passed. The secretary, Dr. Sonkin, read the annual report and the treasurer, Dr. Rohr, read the treasurer's report; these were accepted as read, upon the motion by Dr. Forgiel and seconded by Dr. Schiff.

Dr. Raymond T. Stevens presented his annual address by the president. He stressed cooperation between physicians for the improvement of standards of medical care in our changing social environment.

The slate of candidates for office for the ensuing year was read as follows: President, Dr. A. J. Gaudet; Vice-President, Dr. M. A. Rohr; Secretary, Dr. D. W. Ruggles; Treasurer, Dr. B. Schiff; Councilor, Dr. E. Mara; Alternate Councilor, Dr. H. Hanley; Delegates, Drs. Woodcome, Zolmian, Hayes, Healey and Kelly. The secretary was instructed to cast one vote in the election of the candidates.

Dr. Sonkin and Dr. Rohr were appointed by Dr. R. T. Stevens to escort Dr. Albert Gaudet to the President's chair. Dr. Albert Gaudet took office and announced that the appointment of the committees would be made public at a later time.

Communications received were read and discussed. The first communication was a letter from the Washington County Medical Society reporting their action in adopting a recommended fee schedule of \$2.00 minimum for polio injection in groups where materials are supplied, and \$1.00 minimum fee where materials are not supplied by the doctor. This was discussed by Drs. Kelly, Gaudet, Mara, Ruggles, Gorfine, Metcalf, Jaworski, Schiff, Zolmian and others.

The Providence Medical Society wrote inquiring as to the status of Dr. Oscar Stapans, who is applying for transfer of his active membership to Providence where he is now practicing.

There was no unfinished business and under new business it was moved by Dr. Schiff, seconded and passed that the dues for the ensuing year be \$25.00.

It was moved and voted to adjourn to the later date of the 27th of March for the annual social meeting.

Respectfully submitted,
DAVID W. RUGGLES, M.D., Secretary



ALBERT J. GAUDET, M.D.
President, 1957-1958
The Pawtucket Medical Association

BRISTOL COUNTY MEDICAL SOCIETY

Officers of the Bristol County Medical Society for the current year are as follows:

President.....O. John Squillante, M.D.
Vice-President.....Bruce W. Smith, M.D.
Secretary.....Paul A. Botelho, M.D.
Treasurer.....Arcadie Giura, M.D.

NEWPORT COUNTY MEDICAL SOCIETY

A meeting of the Newport County Medical Society was held at the Hotel Viking on Wednesday, March 27, 1957. Doctor Malone presided at the meeting which he called to order at 8:15 P.M.

The minutes of the previous meeting were read and approved.

An application for membership was received from Dr. Richard Knowles, which was sent to the censors.

A communication was read from the Washington County Medical Society regarding the anti-polio campaign.

Doctor Brownell reported on the most recent meeting of the House of Delegates of the Rhode Island Medical Society.

Under new business there was a lengthy discussion of the "All Out—All Ages Polio Elimination Campaign." A motion was made, seconded and passed that, in general, the members of the society frown on contract medicine and recommend that patients go to their private physicians unless they are indigent, when they must be treated free, either by their own doctor or at a clinic. In regard to the current "All Out—All Ages Polio Elimination Campaign," and for the year 1957, it was voted that when patients are seen singly or in groups that a minimum fee of \$3.00 per injection would be charged when furnishing vaccine and equipment, and a minimum fee of \$2.00 be charged per injection for service only, and that no charge would be made in the case of indigents.

The fiscal agent appointed for Medicare was discussed by Dr. Abramson.

A motion regarding the Medicare program was adopted for transmission to the president and the secretary of the Rhode Island Medical Society, to the president of Physicians Service, and to the secretary of each county medical society, and it was recommended that Doctor Brownell present it at the next Council meeting.

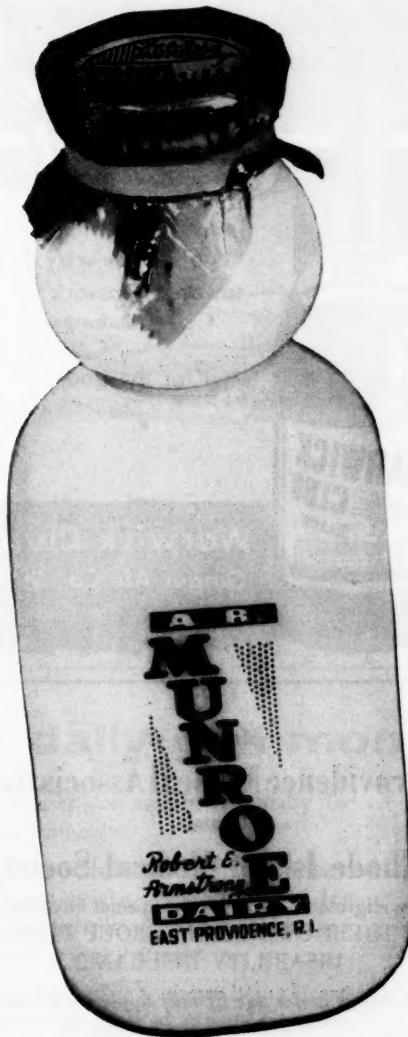
The meeting was adjourned at 10:15 P.M.

Respectfully submitted,

DONALD B. FLETCHER, M.D., *Secretary*
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RHODE ISLAND MEDICAL JOURNAL

PROVIDENCE MEDICAL ASSOCIATION

A meeting of the Providence Medical Association was held at the Medical Library on Monday, April 1, 1957. The meeting was called to order by the president, Doctor Thomas L. Greason, at 8:30 P.M.

The reading of the minutes of the previous meeting of the Association was omitted by general consent.

Announcements of the President

The president made the following announcements:

That the committee of Doctors Louis I. Kramer and Banice Feinberg had submitted a tribute for the Association's records to the late Doctor Perry Bernstein.

That the attention of all members is directed to the dates for the 146th Annual Meeting of the Rhode Island Medical Society—Wednesday, May 1, and Thursday, May 2, 1957.

That members are reminded that the Annual Dinner and Golf Tournament of the Association will be held at the Rhode Island Country Club on Wednesday, June 12.

Award of Membership Certificates

The president awarded certificates of membership to the following physicians who were elected at the March meeting: J. Wallace Conklin, M.D.; Mario A. Nicotra, M.D.; Giovannino Petrocelli, M.D., and Henry Sprung, M.D.

Doctor Wilson F. Utter was awarded a certificate in absentia.

Scientific Program

The president announced Doctor Charles A. Kane, professor of neurology, who discussed the subject *Recent Advances in the Understanding and Treatment of Cerebral Vascular Disease.*

In his introductory remarks, Doctor Kane stressed the importance of cerebro-vascular disease as a cause of death and disability and its effect on the American economy. Approximately 178,000 people died of cerebro-vascular disease in 1956. This astounding figure places diseases of the brain as third in the list of causes of death.

Vascular malformations of the brain and internal carotid artery thrombosis were discussed at length. He stated that a certain percentage of patients with internal carotid thrombosis improve, but in general one out of three will die. Some patients are being treated with anticoagulants.

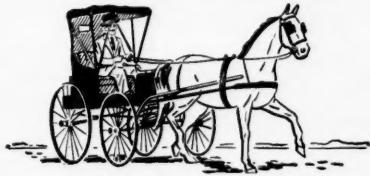
He pointed out the interesting fact that although the weight of the brain is approximately 2% of the weight of the body, it receives 20% of the ventricular output.

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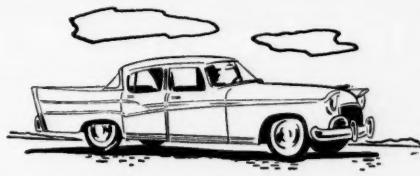
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*Talkov, R. H., Ropes, M. W.,
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The Value of Enteric
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N.E.J. Med. 242:19
(Jan. 5) 1950.

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WOMAN'S AUXILIARY

President's Traffic Safety Seminar

REAR ADMIRAL H. B. Miller USN (Ret.), director of the President's Committee for Traffic Safety, invited the chairman of the Safety Committee of the Auxiliary to one of the six regional seminars held March 6, 7, and 8 at Northeastern University in Boston. There were thirty-two women present, each representing large women's and parents' organizations in New England, New York, and New Jersey.

The purpose of the meeting was twofold:

1. To give the women a clear picture of the traffic accident and congestion problems confronting American communities and states.
2. To offer action plans by which women's and parents' groups can support official agencies in reducing accidents and congestion and improving the highway transportation system.

Instructors for the seminar were provided by the Traffic Institute of Northwestern University, the National Safety Council, and the Automotive Safety Foundation.

The seminar emphasized the major role women can play in traffic safety. It was stated that traffic

AUXILIARY ELECTIONS

At its Annual Convention held at the Officers Club, at the Quonset Naval Air Station, on May 2, the Woman's Auxiliary to the Rhode Island Medical Society elected the following slate of officers:

<i>President</i>	MRS. HANNIBAL HAMLIN
<i>President-Elect</i>	MRS. STANLEY D. SIMON
<i>Vice-President</i>	MRS. H. BICKFORD LANG
<i>Recording Secretary</i>	MRS. JAMES P. O'BRIEN
<i>Corresponding Secretary</i>	MRS. EDMUND BILLINGS
<i>Treasurer</i>	MRS. RUDOLPH PEARSON
<i>Assistant Treasurer</i>	MRS. DONALD F. LARKIN

The following members were elected to serve on the Board of Directors:

<i>Providence</i>	MRS. ARTHUR B. KERN
<i>Pawtucket</i>	MRS. RAYMOND T. STEVENS
<i>Woonsocket</i>	MRS. AUREY FONTAINE
<i>Newport</i>	MRS. LEWIS ABRAMSON
<i>Kent</i>	MRS. ARTHUR HARDY
<i>Bristol</i>	MRS. LELAND JONES
<i>Washington</i>	MRS. CLIFFORD HATHAWAY

accidents constitute one of the most critical domestic problems now facing the United States and it is a problem that state officials won't be able to keep under control without the active support of parents' and women's organizations.

Safety features on cars were discussed at great length, and it was determined that only by public support and demand will the manufacturers incorporate these in new cars.

Where the techniques of better enforcement, education, engineering, and driver licensing had been incorporated, the results have been spectacular.

The seminar was designed to explain in non-technical language how officials charged with each aspect of traffic go about their duties, how cities and states can have their performance measured and evaluated, and how many organizations can play a strong role in improving governmental agencies responsible for traffic.

PROVIDENCE MEDICAL ASSOCIATION

concluded from page 300

He listed the types of cerebro-vascular diseases as follows:

1. Cerebro-vascular Thrombosis—66% of the cases
2. Cerebral Hemorrhage—21% of the cases
3. Cerebral embolism—5% of the cases
4. Subarachnoid hemorrhage—8% of the cases

Doctor Kane emphasized the importance of careful examination and evaluation of every patient as a whole since certain types of cerebro-vascular diseases may represent a manifestation of another disease.

In the presence of a facial nevus or telangiectasis one must suspect a cerebro-vascular malformation.

Adjournment

The meeting adjourned at 10:20 P.M.

Attendance was 78.

Collation was served.

Respectfully submitted,
MICHAEL DiMAIO, M.D., Secretary

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THE WORKSHOP ON ALCOHOL EDUCATION—A REPORT

HELENA H. SHEA, M.A., AND LAURENCE A. SENSEMAN, M.D.

UNDER THE joint sponsorship of the Rhode Island State Department of Education and the Division of Alcoholism, a two-day workshop on alcohol education was held at the Rhode Island College of Education on February 12, and 13, 1957. The general aims of the workshop were to present background information about alcohol and instruction about alcohol in its many phases, to analyze the needs of the students, the schools, and the community, to provide opportunities for free and open discussion among the participants and to make recommendations for future action. Every public, private, and parochial secondary school was invited to send a representative, as was every college and university in the state. All school superintendents were invited as were members of the Advisory Council of the Division of Alcoholism and the State Board of Education. In addition, there were representatives from industry, the armed forces, the Rhode Island Congress of Parents and Teachers, the clergy, the Juvenile Court, the Rhode Island Medical Society, and several other state agencies and institutions.

Mr. Raymond G. McCarthy, associate professor of health education and a member of the staff of the Yale University Center of Alcohol Studies, gave the keynote address. Films dealing with various phases of the use of alcohol were shown and several small groups were organized for the purpose of free discussion and exchange of ideas. The second day's session gave participants an opportunity to evaluate the results of the conference and, with the assistance of Mr. McCarthy, to make plans for future activities.

The speaker, who is an outstanding authority in the field of alcohol instruction, raised several important questions in reference to instruction about alcohol in the schools. He touched upon the philosophy and functions of the educational process in a democracy. When and where should this instruction be given? What are the objectives of alcohol instruction? What emphasis on content should be given? Do we advocate total abstinence, moderation, or a detached objective approach with respect to the social use of alcohol? In what courses do we place this material? Who shall teach about alcohol? What is adequate preparation for such teaching?

These questions stimulated a considerable

amount of discussion and four discussion groups were set up to work over some formal questions presented to them; their findings reflect the thinking of a cross section of the community. The groups felt that community attitudes influenced the type of instruction given in the schools about alcohol and that the schools have a definite responsibility to furnish such instruction. They felt also that adolescents need instruction about the use of alcohol, since drinking is a part of our culture. The ability to make mature decisions is an aim of our general mental health education and the adolescent who is trying to achieve independence and gain acceptance from his peers needs help and guidance in learning to make choices and decisions based upon reason and knowledge.

Mr. McCarthy pointed out that in the past instruction about alcohol has not been effective, even though state laws require it. He advocated the use of a positive psychological approach which will capitalize the students' interest and allow for free and uninhibited discussion in the classroom. There are now many teaching aids available in this field, but there need to be more training facilities available to teachers, both student teachers and those in service. The problem is a large one and it will take a long time to work it through.

Among the recommendations made by the group, the most outstanding and practical one which should be started immediately, was the setting up of a work-book or guide for teachers. This curriculum guide would serve to integrate teaching about alcohol with other courses. It should be prepared by experienced teachers. Its concepts should be pre-tested in the classrooms so that it would be a functional guide. It was recommended that some one be assigned to such a project as soon as possible, since the project will take a long time and require a considerable amount of training and research in the field of alcohol. The group viewed the function of the Division of Alcoholism as that of consultant to the Department of Education which should be responsible for providing all the required material for the schools.

About one hundred people participated in the workshop which was felt to be a good beginning for a long-time program of alcohol education, not only in the schools but for the public at large, as

well as for special groups such as the armed forces, industry, social service, and public health.

PROGRESS AND FUTURE PLANS OF THE STATE DIVISION OF ALCOHOLISM

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educational field. One product of the Division of Alcoholism is, however, being prepared for publication, namely, a pamphlet of facts and fancies about alcoholism. This pamphlet has been prepared by the staff psychologist, Mrs. Helena H. Shea, and is to be given state-wide distribution. Through the kindness of the Rhode Island Medical Society, every physician is to receive one of these pamphlets for his own use, and additional pamphlets will be furnished upon request, as it is felt that a physician's office is an excellent place for these booklets to be seen and read. The pamphlet has been written for lay people and it is the hope of this Division that it will reach many who are in need of help regarding drinking problems, whether it be their own problem or that of a relative or friend.

The State Division of Alcoholism is ready and eager to cooperate in any way possible with the family physician in the care and treatment of the problem drinker.

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BOOK REVIEW

THE FIGHT FOR FLUORIDATION by Donald R. McNeil. Oxford University Press, N.Y., 1957. \$5.00

The fluoridation of communal water supplies has been a controversial subject for years and this book attempts a chronological history of the sordid campaign waged by its proponents and opponents.

The author has reviewed all the important published material on the subject from 1916 to 1956 and while there is little in it to interest the average medical man, researchers may be intrigued to learn that a failure to follow through a valid concept to its ultimate end by full use of proper analytical equipment and the services of research scientists, delayed for years the solution of the problem of mottled teeth and the corollary role of fluoride in tooth decay.

The author errs in comparing the fluoridation struggle to vaccination, pasteurization, immunization, etc. These have all been public health measures destined to prevent the spread of disease and while public resistance had to be overcome to effect their acceptance, no such comparison exists with fluoridation, which is entirely a private health matter.

Unquestionably, by now, it has been established that the addition of fluorides to water supplies will protect the teeth of growing children and that the topical application is also a practical means of attaining this end. To plead that the end justifies the means is a dangerous way to lose our individual liberties. If the principle is once established that the state can do for us something that we can, and should do, for ourselves we will some day see the state doing other things to us, and for us, that is currently believed to be for our own good.

Only one passage in the book deals with such a vital aspect when the author quotes Herbert Bain of the American Dental Association as saying that fluoridation should not "even be proposed until citizens were willing to assume the responsibility."

The author is associate director of Wisconsin State Historical Society. One of the most chauvinistic proponents was also a Wisconsinite and perhaps both are "spiritual descendants" of the progressive agitators who years before had turned Wisconsin into a laboratory for advanced social legislation.

In medicine, change comes slowly and with full scientific appraisal, and perhaps the book will demonstrate clearly the wrong method of approach in matters of the health habits of the public. The response of the public to polio immunization demonstrates a more ready acceptance of public health measures over the private health measures for the individual.

CHARLES L. FARRELL, M.D.

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